

* SWBAT solve problems using $W=F*d$

Sep 6-2:31 PM

Welcome!!!

Centering...

SECA Physics
Tuesday 12 November 2013

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* Pick up:

- slip of paper (for later)
- whiteboard, marker, eraser

Opening Questions:

What was one example of physics work from yesterday?



Sep 7-7:04 AM

Candy!

Examples:

A force is a push or a pull.

Throwing an eraser
Horse pulling a cart

Work is when a force causes a displacement.

Come up with at least 3 examples of "physics" work.

Sep 21-2:13 PM

eureka: <http://www.youtube.com/watch?v=O88BvvKotFo>

It's an equation:

$$W = F \cdot d$$

Let's practice...

Units???

JOULES = NEWTONS · METERS



1. If 1200 N of force lifts a barbell 2 meters from the floor, what is the work done?

$$W = F \cdot d = 1200 \text{ N} \cdot 2 \text{ m} = 2400 \text{ N} \cdot \text{m} = 2400 \text{ J}$$

2. If 40 Joules of work was done on a rock as it moved 4 meters, what was the force?

$$F = \frac{W}{d} = \frac{40 \text{ J}}{4 \text{ m}} = 10 \text{ N}$$

3. If 20 N of force resulted in 10 Joules of work, how far did the object move?

$$d = \frac{W}{F} = \frac{10 \text{ J}}{20 \text{ N}} = .5 \text{ m}$$

Nov 16-7:43 AM

Between "start" and "stop":

Work is when a force causes a displacement.

LESLIE PUSHED ON THE DOOR	NO: DOOR DIDN'T MOVE
LESLIE PULLED BOTTLE & BOOK FELL	YES: ON BOTTLE NO: LESLIE NOT BOOK GRAVITY DID WORK ON BOOK
LESLIE LET GO OF BALLOON & IT FLEW	(YES: TINY BIT ON FINGER) NO: AIR PUSHED BALLOON
ROLLED IN CHAIR WITH BOOK OVER HEAD & SLOWED DOWN	

SOMETHING MUST MOVE IF THERE IS WORK DONE

LESLIE'S PUSH \Rightarrow PHYSICS WORK FRICTION DID WORK

Nov 16-7:43 AM

Daily 3 Questions

- * Every day except test/project days
- * 3 Questions on the topics of the day
- * Main source of daily points
- * I am happy to give credit when I have no concerns about someone giving or getting help with the answers.

You can't get your points if you don't have your **NAME!!!**

Name	Period
1.	
2.	
3.	

Sep 9-7:32 AM

1. What units do we use to measure "work"?

A. pounds

B. meters

C. Joules

2. What is the equation for work?

$$W = F \cdot d$$

3. How much work is done if 1200 N of force is used to lift 2 meters of displacement.

$$W = F \cdot d = 1200\text{N} \cdot 2\text{m} = 2400\text{J}$$

Nov 16-7:45 AM